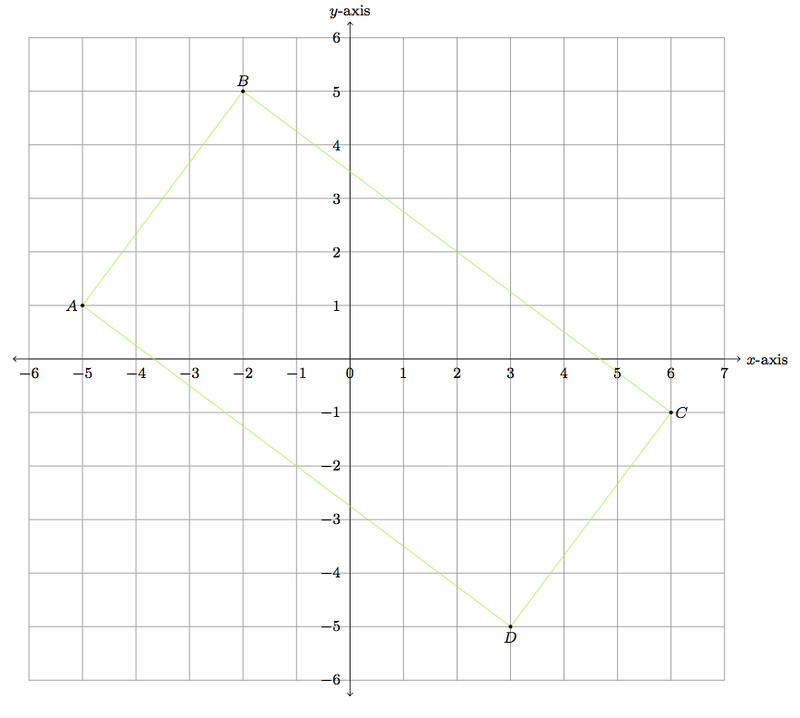
**A Rectangle in the Coordinate Plane**

Below is a quadrilateral in the coordinate plane:



1. Use the Pythagorean Theorem to find the lengths of sides *AB*, *BC*, *CD*, and *DA*.
2. Use the Pythagorean Theorem to find the lengths of the two diagonals *AC* and *BD*.
3. Use questions 1 and 2 to explain without any doubt whatsoever why quadrilateral *ABCD* is a rectangle.